

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

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| In the Matter of  | ) |                      |
|   | ) |                      |
| Carrier Current Systems, including Broadband<br>over Power Line Systems   | ) | ET Docket No. 03-104 |
|   | ) |                      |
| Amendment of Part 15 regarding new requirements<br>And measurement guidelines for Access Broadband<br>over Power Line Systems | ) | ET Docket No. 04-37  |
|   | ) |                      |

**REPLY COMMENTS OF THE ACADEMY OF MODEL AERONAUTICS**

To: The Commission

The Academy of Model Aeronautics (“AMA”) respectfully submits these reply comments in the above-captioned proceeding concerning the appropriate regulatory structure for operation of Broadband over Power Lines (“BPL”).<sup>1</sup>

**Introduction**

As set forth in its Comments submitted May 3, 2003, the AMA and its 170,000 members interested in aeromodeling are concerned about the potential for harmful interference posed by unlicensed BPL systems to low-power aeromodeling activities conducted nationwide on several bands of frequencies ranging from 27 to 76 MHz. The report of the National Telecommunications and Information Administration of the Department of Commerce (“NTIA”), *Potential Interference From Broadband Over Power Line (BPL) Systems to Federal Government Radiocommunications at 1.7 – 80*

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<sup>1</sup> 69 Fed. Reg. 12612 (Mar. 17, 2004). The due date for reply comments was extended by Order released May 27, 2004, DA 04-1552.

*MHz*,<sup>2</sup> reinforces AMA's concerns; and the comments submitted by other parties to this proceeding do nothing to allay the concerns. Other users operating below 80 MHz echo the concerns of AMA, while BPL proponents offer mere self-serving denials that BPL will interfere with other users.

### **Comments**

The IEEE-USA in its comments recommends additional studies be conducted, in particular to evaluate the efficacy of any proposed interference mitigation techniques. It is understood that the Europeans believe the risks are so substantial as to cause them to allocate \$25 million for further testing and analysis. The Association of Public-Safety Communications Officials-International, Inc., similarly urges further testing in order to properly evaluate the interference potential prior to BPL being unleashed upon the user community in an unprecedented scale for unlicensed devices. BPL may develop into a panacea for delivering services to homes and businesses, or it may turn out to be a Pandora's box. The Commission cannot risk exposing tens of thousands of users operating systems running the span from public safety to industrial to entertainment to personal uses to the potential for harmful interference without establishing an appropriate and dispositive database of experience to judge the effect of BPL on other users. The NTIA Report clearly demonstrates the need for such further testing.

BPL proponents blithely ignore the risks posed and seek to dilute the protections proposed by the Commission. For example, Southern Linc appears to be laying the

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<sup>2</sup> NTIA Report 04-413 (April 2004) ("NTIA Report"). *See* <http://www.ntia.doc.gov/ntiahome/fccfilings/2004/bpl/index.html>. *See also* Technical Appendix to the NTIA Comments on the BPL NPRM, [http://www.ntia.doc.gov/ntiahome/fccfilings/2004/BPLTechAppdx\\_06042004.pdf](http://www.ntia.doc.gov/ntiahome/fccfilings/2004/BPLTechAppdx_06042004.pdf) (June 4, 2004).

foundation for pursuing higher emission limits.<sup>3</sup> Moreover, Southern Linc, Main.net Communications, Current Technologies, and others seek to eviscerate the database requirement proposed by the Commission. They seek to prohibit public access, and propose lengthy and involved procedures to address interference concerns. Contrary to the efforts to weaken remedial provisions proposed by the Commission, stronger measures are necessary as set forth in the Comments of AMA and numerous other parties to this proceeding. This includes, as discussed in AMA's comments, maximum assurance of technical compliance through the Commission's Certification equipment authorization process as being both appropriate and necessary. This latter recommendation is endorsed by NTIA.<sup>4</sup> The position of the BPL proponents ignores the fundamental concept underlying the non-interference condition imposed on Part 15 operations.

As described in AMA's comments, aeromodeling users must have a predictive capability to anticipate BPL interference. A database that is not open to the public, or that requires inquiry via a third-party, is of no use in planning operations and seeking to avoid interfering conditions. The reasons for maintaining secrecy of location advanced by BPL proponents are transparent. As to use of the database to locate critical utility infrastructure, as detailed in the AMA comments location of utility lines and facilities already is a matter of public record, easily obtained through the internet. The FCC's licensing database containing site information on electric utility (as well as pipeline and railroad) telecommunications facilities is open to the public. Making public the location of BPL transmitters, which will be located on some utility poles, will not serve to

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<sup>3</sup> Southern Linc, *et al.*, Comments at 15-17 (May 3, 2004).

<sup>4</sup> NTIA Comments at 14-15 (June 4, 2004).

disclose critical infrastructure facility locations, particularly considering that BPL predominantly will be employed to provide internet and other commercial services.<sup>5</sup> As to revealing competitive information, vendors in the market publicly readily disclose where they offer service, and commonly do so on their internet web sites;<sup>6</sup> and they certainly know the areas where their competitors offer service. For a BPL service provider to attempt to hide its light under a basket only will serve to hide that light from customers as well as competitors.

### **Conclusion**

The Academy of Model Aeronautics well recognizes the march forward of technology and technological development. That march, however, must be planned; and the pathway must be thoroughly investigated and mapped. The NTIA Report evidences that BPL technology must be further investigated before being let loose upon the telecommunications user community. If widely deployed before the interference potential is fully understood and an *effective* regulatory mechanism established, its destructive and mutually destructive potential could wreck havoc upon an untold number of users of the radio frequency spectrum.

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<sup>5</sup> It is highly incongruous to plan to utilize utility infrastructure to offer non-utility commercial services and then seek to hide behind the façade of “critical infrastructure” to avoid accountability.

<sup>6</sup> See, e.g., [www.verizon.com](http://www.verizon.com) where one readily can determine if DSL service is available in one’s locale.

WHEREFORE, THE PREMISES CONSIDERED, the Academy of Model Aeronautics urges the Federal Communications Commission to impose the conditions and terms described in AMA's comments and in these reply comments in reaching any final decision to authorize widespread deployment of broadband over power line technology under Part 15 of the Commission's rules.

Respectfully Submitted,

**Academy of Model Aeronautics**

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